UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,071	11/19/2003	Reza Shahidi	4740-250	7244

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EXAMINER
GESESSE, TILAHUN

ART UNIT	PAPER NUMBER
2618	

MAIL DATE	DELIVERY MODE
05/24/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<table>
<tr><td></td><td>Examiner</td><td>Art Unit</td><td></td></tr>
<tr><td></td><td>Tilahun B. Gesessse</td><td>2618</td><td></td></tr>
</table>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 March 2007*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-45* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed March 12, 2007 have been fully considered but they are not persuasive.

On page 11, fourth paragraph of response , applicant argued that Dillon does not teach monitor the combined usage of a shared network resource, and cannot determine whether or not a combined usage exceeds a threshold.

The examiner disagrees. Dillon teaches a Code Division Multiple Access or CDMA2000 system (see figure 1, page 2 paragraph 0019) in which capable of high speed data and voice (see page 3 paragraph 0023,0025) in which CBTS controls the combined traffic resource based on cell congestion (overload) and determined whether the voice is in danger of being dropped by signal to noise ratio (threshold) of the combined resource and non-priority traffic channel gains are reduced (see page 3, 0025-0030 and figure 3).

On page 12 first paragraph of response , applicant argued that Dillon does not teach compare-combined usage of a shared network resource , the threshold comparison is not equivalent to the combined usage threshold comparison of the claim.

The examiner disagrees. Dillon teaches calculate the signal to noise ration of the combined resource (within the cell) and determines the cell is overload condition, the signal to noise ration value compared to a predetermined acceptable signal to noise ratio (see page 3 paragraph 0028 and figure 3).

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-45 are rejected under 35 U.S.C. 103(a) as being unpatentable Dillon et

al (US 2002/0137520) in view of Lewis et al (US 6,847,821).

As to claims 1,19, Dillon teaches a method of prioritizing voice over data service

in a wireless communication network, (see abstract and page 2, paragraph 0016, lines

13, determining whether the cell is in overload condition whether the voice users who

are at the maximum gain level. The method includes reducing the gains of non-priority

users (data users) or whether the voice call in danger is either save or lost. fig.3)

comprising:

Dillon teaches the combined usage exceeds a resource release threshold,(see

page 3, paragraph 0025-0028).

Dillon teaches reducing the combined usage by a desired amount by modifying

ongoing service to one of the current data users (see page 3, paragraph 30) in which

the non-priority traffic channel gain area reduce (the non-priority traffic is data traffic).

Dillon silent a shared network resource. However, Lewis teaches monitoring a

combined usage of a shared network resource by current voice and data users (see

abstract) in which, Lewis teaches a method in a wireless communication network, for

the simultaneous transmission of voice and non-voice data over a signal dedicated

radio frequency channel. Dillon and Lewis teaches monitoring traffic and managing the service, then, it would have been obvious to an artisan of ordinary skill in the art at the time of the invention was made to shared network resources in Dillon system, as evidenced by Lewis , in order to allow voice and non-voice data transmit in a single channel , thus freeing other channels for other tasks or resource capacity of the system (see col. 1, lines 65-col2, line 2).

Claim 2, Dillon silent a shared network resource.

However, Lewis teaches monitoring a combined usage of a shared network resource by current voice and data users (see abstract). Dillon and Lewis teaches monitoring traffic and managing the service, then, it would have been obvious to an artisan of ordinary skill in the art at the time of the invention was made to shared network resources in Dillon system, as evidenced by Lewis, in order to allow voice and non-voice data transmit in a single channel , thus freeing other channels for other tasks or freeing resource capacity for the system (see col. 1, lines 65-col2, line 2).

Claims 3-4, Lewis teaches reducing the combined usage a desired amount by modifying ongoing service to one of the current data users comprises reducing a transmit power allocation for one or more of the current data users (see page 3, paragraph 0032-page 4, paragraph 0035 and figure 4).

Claims 5,22 Lewis teaches reducing a transmit power allocation for one or more of the current data users comprises reducing a data rate of a forward link channel associated with each of the one or more current data users (see page 3, paragraph 0032-page 4, paragraph 0035 and figure 4).

Claims 7,20-21 Lewis teaches reducing a transmit power allocation for one of the

current data users comprises changing a radio service configuration of each of the one

current data users (see page 3, paragraph 0025-0030 and figure 3).

Claim 6, Dillon teaches reducing a transmit power allocation for one of the

current data users comprises reducing an encoding rate of a forward link

channel associated with each of the one current data users (page 2, paragraph 0016 ,

identifying associated of priority level and non-priority level , where the voice is

maximum level and reduce the gain of non-priority level until the cell recover form the

an overload situation or until the voice call in danger is either saved or lost) in which the

gain of non-priority (data or HSD) reduced then, an encoding rate of a forward link

channel associated with data users is reduced.

Claims 8,17,18,25-30 Dillon teaches selecting the one current data users for

reduction of allocated transmit power based on ranking the current data users according

to a forward link power-to-data-rate metric and choosing a number of current data users

in rank order to achieve the desired amount of reduction (see page 3, paragraph 0025-

0030 and figure 3) in which calculate Ec/Io associate with priority gain of each channel

upon all voice users at maximum gain reduce non-priority gain (data).

Claims 9,15, Lewis teaches choosing a particular one of the current data users

for modification of ongoing service according to an overall service objective comprising

a throughput objective that penalizes one to maintain data service throughput (see page

3, paragraph 0025-0030 and figure 3).

Claims 13,16 Lewis teaches reducing the combined usage by a desired amount by modifying ongoing service to one of the current data users comprises reducing an aggregate usage of the shared network resource by the data users subject to one minimum usage constraints such that resources are not released from the current data users in violation of any minimum usage constraint (see page 3, paragraph 0025-0030 and figure 3).

As to claims 14,Dillon teaches a method of dynamically prioritizing voice over data service in a wireless communication network, (see abstract and page 2, paragraph 0016, lines 13, determining whether the cell is in overload condition whether the voice users who are at the maximum gain level. The method includes reducing the gains of non-priority users (data users) or whether the voice call in danger is either save or lost. fig.3) comprising :

Dillon teaches the combined usage exceeds a resource release threshold,(see page 3, paragraph 0025-0028).

Dillon teaches reducing the combined usage by a desired amount by modifying ongoing service to one of the current data users (see page 3, paragraph 30) in which the non-priority traffic channel gain area reduce (the non-priority traffic is data traffic).

Dillon silent a shared network resource. However, Lewis teaches monitoring a combined usage of a shared network resource by current voice and data users (see abstract) in which, Lewis teaches a method in a wireless communication network, for the simultaneous transmission of voice and non-voice data over a signal dedicated radio frequency channel. Dillon and Lewis teaches monitoring traffic and managing the

service, then, it would have been obvious to an artisan of ordinary skill in the art at the

time of the invention was made to shared network resources in Dillon system , as

evidenced by Lewis , in order to allow voice and non-voice data transmit in a single

channel , thus freeing other channels for other tasks or resource capacity of the system

(see col. 1, lines 65-col2, line 2).

Claims 10-11, Dillon teaches monitoring usage of forward link spreading codes at

a network radio base station (see page 3, paragraph 0031-page 4, paragraph 0035

and figure 4).

Claim 12, 23-24, Dillon teaches reducing forward link spreading code usage for

one of the current data users comprises changing a spreading code assignment for

each of the one current data users from a spreading code in a base set of spreading

codes to a spreading code in an extended set of spreading codes (see page 3,

paragraph 0031-page 4, paragraph 0035 and figure 4).

Claims 31-34,37,42-45 Dillon teaches a radio base station comprising: a wireless

communication network, (see abstract and page 2, paragraph 0016, lines 13,

determining whether the cell is in overload condition whether the voice users who are at

the maximum gain level. The method includes reducing the gains of non-priority users

(data users) or whether the voice call in danger is either save or lost. fig.3) comprising:

Dillon teaches the combined usage exceeds a resource release threshold,(see

page 3, paragraph 0025-0028).

Dillon teaches reducing the combined usage by a desired amount by modifying

ongoing service to one of the current data users (see page 3, paragraph 30) in which

the non-priority traffic channel gain area reduce (the non-priority traffic is data traffic).

Dillon silent a shared network resource.

However, Lewis teaches monitoring a combined usage of a shared network

resource by current voice and data users (see abstract) in which, Lewis teaches a

method in a wireless communication network, for the simultaneous transmission of

voice and non-voice data over a signal dedicated radio frequency channel. Dillon and

Lewis teaches monitoring traffic and managing the service, then, it would have been

obvious to an artisan of ordinary skill in the art at the time of the invention was made to

shared network resources in Dillon system , as evidenced by Lewis , in order to allow

voice and non-voice data transmit in a single channel , thus freeing other channels for

other tasks or resource capacity of the system (see col. 1, lines 65-col2, line 2).

Claim 35, Dillon teaches as explained in claim 34, Dillon, further teaches

cdma2000 radio base station (see page 2, paragraph 0019).

Claims 36,40-41, Dillon teaches base station IS2000, it is inherent to utilize

supplementary channel (see page 3, paragraph 0031-page 4, paragraph 0035 and

figure 4, page 2,paragraph 0019).

Claims 38-39, Dillon teaches reducing a transmit power allocation for one of the

current data users comprises reducing an encoding rate of a forward link

channel associated with each of the one current data users (page 2, paragraph 0016 ,

identifying associated of priority level and non-priority level , where the voice is

maximum level and reduce the gain of non-priority level until the cell recover form the

an overload situation or until the voice call in danger is either saved or lost) in which the

gain of non-priority (data or HSD) reduced then, an encoding rate of a forward link

channel associated with data users is reduced.

Conclusion

4.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Kim et al (US 6,393,030) teaches receiving a new call by controlling a

transmission rate of data call being under a service , a process for accepting more calls

by controlling a transmission rate of data calls, checked whether the priority of new call

is higher than that of the data call currently in service, (see column 6, lines 47-68 and

figure 1).

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Tilahun B Gesesse whose telephone number is 571-

272-7879. The examiner can normally be reached on flexible schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Edward Urban can be reached on 571-272-7899.

The Central FAX Number is 571-273-8300. For patent related

correspondence, hand carry deliveries must be made to the Customer Service

Window (now located at the Randolph Building, 401 Dulany Street, Alexandria,

VA 22314), and facsimile transmissions must be sent to the Central FAX number .

Information regarding the status of an application may be obtained from

the Patent Application Information Retrieval (PAIR) system. Status information

for published applications may be obtained from either Private PAIR or Public

PAIR. Status information for unpublished applications is available through

Private PAIR only. For more information about the PAIR system, see http://pair-

direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TG

May 16, 2007
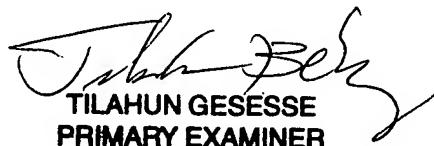
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PRIMARY EXAMINER